WASHINGTON STATE DEPARTMENT OF
Natural Resources

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COUNTY OR MUNICIPALITY APPROVAL FOR SURFACE MINING (Form SM-6)

NAME OF COMPANY OR INDIVIDUAL APPLICANT(S)
Same as name of reclamation permit holder. (Type or print in ink.)

Northwest Rock, Inc.

MAILING ADDRESS

642 Newskah Road

Aberdeen, WA 98520 - 9511

Telephone 360-533-3050

TOTAL ACREAGE OF PERMIT AREA
(Include all acreage to be disturbed by mining, setbacks and buffers, and associated activities during the life of the mine.) 135.27 acres

COUNTY Grays Harbor

No attachments will be accepted. Legal description of permit area:

1/4	1/4	Section	Township	Range
		04&09	16N	09W

Proposed subsequent use of site upon completion of reclamation

Forestry

This area is currently zoned General Development 5 with Grays Harbor County and forestry is a suitable use.

Surrounding properties are currently in forestland production.

Includes hazardous slope approval (see attached map)

Signature of company representative or individual applicant(s)	Name and title of company representative *(please print)*	Date signed
Dan Meldrich	Dan Meldrich Permit Coordinator	5/17/99

TO BE COMPLETED BY THE APPROPRIATE COUNTY OR MUNICIPALITY:

Please answer the following questions 'yes' or 'no'.

	Yes	No
1. Has the proposed surface mine been approved under local zoning and land-use regulations? See Attachment	X	
2. Is the proposed subsequent use of the land after reclamation consistent with the local land-use plan/designation?	X	

When complete, return this form to the appropriate Department of Natural Resources regional office.

Name of planning director or administrative official *(please print)*

Kenneth Kimura

Signature

Title *(please print)*

Planning Director

Telephone

360-249-5579

Date

Address

Department of Public Services
100 W Broadway, Suite 31
Montesano, WA 98563-3614
Phone; 360-249-4222
Fax; 360-249-3203

FOR DEPARTMENT USE ONLY:

DNR Reclamation Permit No.

70-010196

Copy distribution: White = Olympia, Yellow = Region, Pink = Applicant, Goldenrod = County or Municipality

NORTHWEST ROCK, INC.

THE PROPOSED SURFACE MINE HAS BEEN APPROVED UNDER LOCAL ZONING AND LAND-USE REGULATIONS.

13.08.130 Applicability. This Ordinance shall apply to all surface-excavations conducted within the unincorporated area of Grays Harbor County, provided that the following shall be exempt from the requirements of this Ordinance:

1. Surface-excavations by an owner of property for materials to be used exclusively for improvements to property under the same ownership.
2. Surface-excavations approved pursuant to the Shoreline Management Act which involved removal of sand or gravel only from the surface of naturally occurring deposits in or adjacent to a body of water subject to the Shoreline Management Act.
3. Surface-excavations conducted on lands classified as forest-lands pursuant to RCW 84.33 (or) on lands owned by a State, County, or municipal agency, and dedicated to timber production and use, subject to the following limitations:
   a. Material excavated pursuant to this Section shall be used exclusively for projects directly associated with commercial forest-operation.
   b. Excavations pursuant to this Section shall be located not less than one-half mile from any land not so classified or dedicated.
   c. Excavation pursuant to this Section shall be subject to the requirements of this Ordinance for proper reclamation.
   d. The provisions of this Section shall not apply on lands zoned as Agricultural or Residential. (Ord. 92 adopted January 12, 1981 amending Ord. 88 adopted April 28, 1980).

The Newskah Quarry Surface Excavation is on lands classified as forestlands pursuant to RCW 84.33.

Name of Planning Director
Kenneth Kimura

Signature
Kenneth Kimura Date Approx May 3, 1999

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APPLICATION FOR RECLAMATION PERMIT FORM SM-8A

Check appropriate box(es): ☐ new permit ☒ revision of existing permit ☐ transfer of permit ☒ expansion

NOTE: Do not attempt to complete this form until you have carefully read the accompanying instruction document (SM8AINST.PDF). Do not attempt to use this form as an MS Word Template unless you are familiar with the use of templates in MS Word.

1. NAME OF APPLICANT/PERMIT HOLDER(S)
NORTHWEST ROCK, INC.

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2. MAILING ADDRESS
642 NEWSKAH RD.
ABERDEEN, WA 98520

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3. Telephone *360.533.3050*
UBI No. *141 006 586*

4. NAME OF MINE
NEWSKAH QUARRY

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5. Street address and milepost of surface mine
642 NEWSKAH RD.

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6. Distance (miles)	**7.** Direction from	**8.** Nearest community
4.5	*SOUTH*	*ABERDEEN*

9. COUNTY *GRAYS HARBOR*
No attachments will be accepted. Legal Description of permit area:

1/4	1/4	Section	Township	Range
NE	NW	9	16	09WWM
NW	NE	9	16	09WWM
SE	SW	4	16	09 WWM
SW	SE	4	16	09 WWM

10. TOTAL ACREAGE OF PERMIT AREA APPLIED FOR
(include all acreage to be disturbed by mining, setbacks, buffers, and associated activities during the life of the mine.)
135.27 acres

11. Do you or any person, partnership, or corporation associated with you now hold, or have you held, a surface mining operating or reclamation permit? ☒ yes ☐ no

If you answered yes to the above, please list:

Permit Number	Active Operation?		Reclamation current/complete?	
	Yes	No	Yes	No
70-012705	☒	☐	☒	☐
70-011473	☒	☐	☒	☐
70-012671	☒	☐	☒	☐
70-012863	☒	☐	☒	☐

12. Are all of these mines now in compliance with RCW 78.44, WAC 332-18, and conditions of the permits? ☒ yes ☐ no

13. Have you ever had a surface mine operating or reclamation permit revoked? ☐ yes ☒ no

Have you ever had a reclamation security forfeited? ☐ yes ☒ no
If you answered yes to either of the above, list the permit number(s):

14. Type of proposed or existing mine: ☐ pit ☒ quarry
Material(s) to be mined: ☐ sand and gravel ☒ rock or stone ☐ clay ☐ metal ☐ limestone ☐ silica ☐ other ____

Deposit type: ☐ glacial ☐ river floodplain (alluvial) ☐ river channel deposits ☐ talus ☒ bedrock ☐ lode ☐ unknown ☐ other ____

15. Total Acreage and Depth of Permit Area:
(Include all acreage to be disturbed by mining, setbacks, buffers, and associated activities during the life of the mine.) (See Form SM-6.)

Total area disturbed will be *135.27* acres.
Area to be disturbed in next 36 months will be **0** acres.

Maximum vertical depth below pre-mining topographic grade is 350 feet.
Maximum depth of excavated mine floor is 120 feet relative to mean sea level

16. Expected start date of mining	**17.** Estimated number of years
ONGOING SINCE 1960	*APPROX 200 YRS*

18. Total quantity to be mined over life of mine (estimated):	**19.** Estimated annual production:
11 MILLION ☒ tons, or ☐ cu yds	*500,000* ☒ tons, or ☐ cu yds

20. Subsequent land use: ☐ industrial ☐ commercial ☐ residential ☐ agricultural ☒ forestry ☐ wetlands and lakes ☐ Other ____

Reclaimed elevation of floor of mine: 120 feet relative to mean sea level

Reclaimed elevation is shown on cross sections? ☒ yes ☐ no

Subsequent land use is compatible with County or Municipal comprehensive plan? ☒ yes ☐ no

County or Municipality Approval for Surface Mining (Form SM-6) attached? ☒ yes ☐ no

SEPA Checklist required? ☐ yes ☒ no

If any answers are no, explain: *REVISION APPROVED BY IN GRAYS HARBOR COUNTY BY ADMINISTRATIVE DECISION – SEE ATTACHED LETTER WITH SM-6.*

21. Application fee for a new reclamation permit is herewith attached? ☒ yes ☐ no

CHECKLIST OF RECLAMATION STANDARDS

22. SEGMENTAL RECLAMATION

Permit area has been divided into segments for mining and a mining schedule has been developed? ☒ yes ☐ no
If no, explain:

Permit area has been divided into segments for reclamation and a reclamation schedule has been developed? ☒ yes ☐ no
If no, explain:

23. SITE PREPARATION

23A. Permit and Disturbed Area Boundaries

Boundary of the permit area has been marked on the ground with permanent boundary markers? ☒ yes ☐ no
Explain boundary markers: *AREA IS CLEARLY MARKED BY TIMBER BOUNDARIES AND OTHER NATURAL BOUNDARIES; NEWSKAH CREEK SERVES AS A NATURAL BOUNDARY.*

23B. Saving Topsoil, Subsoil, and Overburden for Reclamation

Thickness of topsoil is *10"-12"*
Thickness of subsoil is *36* feet
Depth to bedrock is *36.5* feet
Total volume of topsoil is cubic yards
Total volume of subsoil is *1,375,000* cubic yards
Volume of stored topsoil/subsoil is cubic yards and will require acres for storage.

Storage areas are shown on maps and have been marked on the ground with permanent boundary markers? ☒ yes ☐ no

Topsoil will be salvaged? ☐ yes ☒ no
If no, explain: *WE WILL SALVAGE ALL OVERBURDEN, BUT MATERIAL IS A SUBSOIL PRODUCT AND NOT TOPSOIL AS DEFINED IN RECLAMATION LAW [RCW 78.44] RICH IN HUMUS. THE MATERIAL STOCKPILED FROM THIS SITE IS SUBSOIL, SUITABLE FOR PLANTING CONIFERS AND OTHER DECIDUOUS TREES.*

Topsoil and overburden will be moved to reclaim an adjacent depleted segment? ☒ yes ☐ no
If no, explain:

Before materials are moved, vegetation will be cleared and drainage planned for soil storage areas? ☒ yes ☐ no
If no, explain:

Soil storage areas will be stabilized with vegetation to prevent erosion if materials will be stored for more than one season? ☒ yes ☐ no
If no, explain:

23C. Setbacks and Screens

Maximum depth of the mine will be *350* feet from *470* feet (*highest*) to *120* feet (*lowest*) elevation relative to mean sea level..

The setback for this site will be *30* feet wide.

Is a permanent, undisturbed buffer planned for this site? ☒ yes ☐ no
If no, explain:

Setbacks are shown on maps and have been marked on the ground with permanent boundary markers? ☒ yes ☐ no
If no, explain:

CHECKLIST OF RECLAMATION STANDARDS

Does this site have a backfilling plan that addresses the protection of adjacent property and how the final, stable slopes are to be achieved? ☒ yes ☐ no
If no, explain: *See attached narrative "Reclamation Setback and Reclamation Sloping"*

23D. Buffers to Protect Streams and Flood Plains

If yes, see "Additional Information Requirements for Flood Plain Mines." This document is included in the SM8AINST.PDF file.

A stream buffer of at least 200 feet has been marked on the ground with permanent boundary markers? ☒ yes ☐ no

A buffer of at least 200 feet from the 100-year flood plain has been marked on the ground with permanent boundary markers? *N/A* ☐ yes ☒ no
If no, explain: *THIS SITE IS OUT OF THE 100 YEAR FLOOD PLAIN.*

Copy of Shoreline Permit from local government or the Dept of Ecology is attached? *N/A* ☐ yes ☒ no

Hydraulic Project Approval from the Department of Fish and Wildlife is attached? *N/A* ☐ yes ☒ no

23E. Conservation Buffers

Conservation buffers will be established for the following purpose(s): (*Check all that apply*)
☐ unstable slopes ☐ wildlife habitat ☐ water quality ☐ other _____

Describe the nature and configuration of the conservation buffer(s):

Conservation setbacks are shown on maps and have been marked on the ground with permanent boundary markers? ☐ yes ☒ no

23F. Ground Water

High water table depth is _____ feet ☐ relative to mean sea level, ☐ below original surface, or ☒ unknown.

Low water table depth is _____ feet ☐ relative to mean sea level, ☐ below original surface, or ☒ unknown.

Annual fluctuation of water table is from _____ feet on _____ to _____ feet on _____.

Direction of ground water flow: _____

Are well logs attached? ☐ yes ☒ no

Is the aquifer perched? ☐ yes ☒ no

Is the shallowest aquifer: ☐ confined ☐ unconfined

The site will be mined: ☐ wet ☒ dry ☐ both

Describe mining method: *Quarrying – Drilling and Blasting.*

The site is in a: *N/A*
☐ critical aquifer recharge area ☐ sole source aquifer ☐ public water supply watershed
☐ wellhead protection area ☐ special protection area ☐ designated aquifer protection area

Ground water study attached? ☐ yes ☒ no
If yes, see "Additional Information Requirements for Hydrologically Sensitive Areas." This document is included in the SM8AINST.PDF file.
If no, explain: *This site is located in an area where there are no critical recharge areas, or special protection areas as defined by chapter 90.48 RCW.*

23G. Archeology

Are archeological/cultural resource sites present? ☐ yes ☒ no
If **yes**, describe how you will protect these resources:

CHECKLIST OF RECLAMATION STANDARDS

24. MINING PRACTICES TO FACILITATE RECLAMATION

24A. Soil Replacement

Topsoil will be saved? ☒ yes ☐ no
If no, explain: *SEE PLAN NARRATIVE – "SOIL BUDGET")*

Up to 4 feet of topsoil and (or) subsoil will be restored? ☒ yes ☐ no
If no, explain:

Topsoil will be restored and seedbeds prepared as necessary to promote effective revegetation and to stabilize slopes and mine floor? ☒ yes ☐ no
If "yes" give details, if "no", explain: *SEE NARRATIVE – MINE PHASING AND RECLAMATION SEQUENCING. THERE ARE NO TOPSOIL'S AS DEFINED BY RCW 78.44, BUT RATHER A DEEP LAYER OF OVERBURDEN OR SUBSOIL SUITABLE FOR SUPPORTING TIMBER GROWTH.*

Subsoil will be replaced to an approximate depth of *1-2* feet on the pit floor and a depth of *4* feet on slopes.

Topsoil will be replaced to an approximate depth of *N/A* feet on the pit floor and a depth of *N/A* feet on slopes.

Topsoil will be distributed evenly over the site? ☐ yes ☒ no
If no, explain: *VARIED SOIL REPLACEMENT DEPTHS MIMIC NATURAL SOIL – THINNER LAYERS OF SOIL ON THE UPSLOPE AREAS AND THICKER LAYERS ON THE LOWER SLOPES MAY NATURALLY ENCOURAGE DIFFERENT VEGETATION TYPES.*

If topsoil is in short supply, it will be strategically placed in depressions and low areas in adequate thickness to conserve moisture and promote revegetation? ☒ yes ☐ no
If no, explain:

Topsoil will be moved when conditions are not overly wet or dry? ☒ yes ☐ no
If no, explain:

Topsoil will be imported? ☐ yes ☒ no
If yes, describe source. If no, explain:

Synthetic topsoil made from compost, biosolids, or other amendments will be used and (or) made on site to supplement existing topsoil? ☐ yes ☒ no
If yes, explain:

Materials such as till, loess, and (or) silt are available on site that could be used to supplement topsoil for reclamation. ☐ yes ☒ no
If yes, explain:

Silt from settling ponds or a filter press will be used for reclamation? ☒ yes ☐ no
If yes, explain: *THERE ARE 9 RETENTION PONDS ON SITE, MATERIALS FROM PONDS WILL BE USED*

CHECKLIST OF RECLAMATION STANDARDS

FOR RECLAMATION WHEN CLEANING OF PONDS IS NEEDED.

Settling pond clay slurries will be pumped or hauled to other segments for reclamation? ☐ yes ☒ no
If yes, explain:

Topsoil will be replaced with equipment that will minimize compaction, or it will be plowed, disked, or ripped following placement? ☒ yes ☐ no
If no, explain:

Topsoil will be immediately stabilized with grasses and legumes to prevent loss by erosion, slumping, or crusting? ☒ yes ☐ no
If no, explain:

Topsoil stockpile areas are shown on maps and will be marked on the ground with permanent boundary markers to protect from loss? ☒ yes ☐ no
If no, explain:

Segmental topsoil removal and replacement is shown on maps? ☒ yes ☐ no
If no, explain:

Topsoil salvage and replacement plan included? ☒ yes ☐ no
If no, explain:

24B. Removal of Vegetation

Vegetation will be removed sequentially from areas to be mined to prevent unnecessary erosion? ☒ yes ☐ no
If no, explain:

Small trees and other transplantable vegetation will be salvaged for use in revegetating other segments? ☐ yes ☒ no
If yes, give details. If no, explain: *SITE IS PRESENTLY USED FOR COMMERCIAL TIMBER PRODUCTION AND WILL BE PLANTED WITH DOUGLAS FIR NURSERY STOCK WHEN POSSIBLE DURING SEGMENTAL RECLAMATION .*

Wood and other organic debris will be:
☒ recycled ☐ removed from site ☐ chipped ☐ burned ☐ buried ☐ used to synthesize topsoil or mulch
☒ other (*explain*) *As segmental reclamation progresses, all organic materials including stumps and LWD will be saved and placed on site, including slopes, to encourage wild life habitat.*
Solid waste disposal, burning, and land use permits are attached? ☐ yes ☒ no

Some coarse wood (logs, stumps) and other large debris will be salvaged for fish and wildlife habitats? ☒ yes ☐ no
If yes, give details. If no, explain: *LWD WILL BE USED ON SLOPES AS WELL AS PIT FLOOR TO HELP WITH EROSION CONTROL.*

CHECKLIST OF RECLAMATION STANDARDS

24C. Erosion control for Reclamation

Pit floor will slope at gentle angles toward highwall, sediment retention pond, or proper drainage? ☒ yes ☐ no
If yes, give details. If no, explain: *STUMPS AND ROOT WADS (LWD) WILL BE PLACED ON AREAS SUCH AS SLOPES WHERE EROSION MAY BE POSSIBLE.*

Revegetation, sheeting, and (or) matting will be used to protect areas susceptible to erosion? ☒ yes ☐ no
If yes, give details. If no, explain: *OVERBURDEN AND SOIL STOCKPILES WILL BE SLOPED 2:1 AND PIT FLOOR WILL BE SLOPED TOWARD HIGHWALL TO HELP WITH EROSION DUE TO STORM WATER.*

Water control systems used for erosion control during segmental reclamation will:

Divert clean water around pit?	☒ yes	☐ no
Trap sediment-laden runoff before it enters a stream?	☒ yes	☐ no
Result in essentially natural conditions of volume, velocity, and turbidity?	☒ yes	☐ no
Handle a 25-year, 24-hour peak event?	☒ yes	☐ no
(Have you attached calculation?)	☐ yes	☒ no
Be removed or reclaimed?	☐ yes	☒ no

If any answers are no, explain: *THIS SITE HAS HANDLED ALL STORM WATER EVENTS SINCE 1960. BOTH THE 1997 AND 99 STORM EVENTS CAUSED NO DAMAGE TO PONDS OR CHANNELS THAT HANDLE STORM WATER.*

PONDS WILL REMAIN AT POST MINING.

Will any water control systems be removed upon final reclamation? ☐ yes ☒ no
If yes, explain:

Water control measure will be established to prevent erosion of setbacks and neighboring properties? ☒ yes ☐ no
If yes, give details. If no, explain: *ALL DRAINAGE AT PRESENT TIME, WILL REMAIN THE SAME. EROSION IS CONTROLLED BY A SERIES OF RETENTION PONDS THAT ALLOW*

Storm-water conveyance ditches and channels will be lined with vegetation or riprap? ☒ yes ☐ no
If yes, give details. If no, explain: *ALL DITCHES AND CHANNELS ARE WELL ESTABLISHED AND SOME ARE LINED WITH RIPRAP WHILE OTHERS ARE NATURALLY VEGETATED AND WILL REMAIN THIS WAY AT POST MINING.*

Natural and other drainage channels will be kept free of equipment, wastes, stockpiles, and overburden? ☒ yes ☐ no
If no, explain:

25. RECLAMATION TOPOGRAPHY

25A. Final Slopes

Final slopes will be created using the cut-and-fill method? ☒ yes ☐ no
Explain procedure to be used: *WE WILL USE RECLAMATION BLASTING, WHICH IS ESSENTIALLY A CUT – AND – FILL METHOD.*

Slopes will be created by mining to the final slope using the cut method? ☒ yes ☐ no
Explain procedure to be used: *RECLAMATION BLASTING WILL REDUCE ALL BENCHES TO A 2:1 SLOPE. AFTER BLASTING IS COMPLETED THEY WILL BE SHAPED, AND STORED OVERBURDEN WILL BE PUSHED ONTO THE BLASTED RUBBLE.*

Slopes will vary in steepness? ☒ yes ☐ no
If no, explain:

CHECKLIST OF RECLAMATION STANDARDS

Slopes will have a sinuous appearance in both profile and plan view? ☒ yes ☐ no
If no, explain:

Large rectilinear (that is, right angle, or straight, planar) areas will be eliminated? ☒ yes ☐ no
If no, explain:

Where reasonable, tracks of the final equipment pass will be preserved and oriented to trap moisture, soil, and seeds, and to inhibit erosion? ☒ yes ☐ no
If no, explain:

25B. Slope Requirements for Pits and Overburden/Waste Rock Dumps (non-saleable products)

If the mine is a quarry or in hard rock, skip to Quarry section(25C).

Slopes will vary between 2 and 3 feet horizontal to 1 foot vertical or flatter, except in limited areas where steeper slopes are necessary to create sinuous topography and control drainage? ☐ yes ☐ no
If no, explain:

For pits, slopes will not exceed 2 feet horizontal to 1 foot vertical except as necessary to blend with adjacent natural slopes? ☐ yes ☐ no
Give details:

Slope stability analysis required? ☐ yes ☐ no
If yes, see "Additional Information Requirements for Mines with Potentially Unstable or Steep Slopes." This document is included in the SM8AINST.PDF file.
Slope stability analysis provided by ____

25C. Slope Requirements for Quarries and Hardrock Metal Mines

If mine is a pit in unconsolidated materials covered by Section 25B, go to Section 25D

Check the appropriate box(es)
☒ Slopes will not exceed 2 feet horizontal to 1 foot vertical.
☒ Slopes steeper than 1 foot horizontal to 1 foot vertical are an acceptable subsequent land use as confirmed on Form SM-6.
☐ Hazardous slopes or cliffs are indigenous to the immediate area and already present a potential threat to human life. Photo and maps attached to document presence of cliffs.
☐ Geologic or topographic characteristics of the site preclude slopes being reclaimed at a flatter angle and are an acceptable subsequent land use as confirmed on Form SM-6.

Slope stability analysis required? ☐ yes ☒ no
If yes, see "Additional Information Requirements for Mines with Potentially Unstable or Steep Slopes." This document is included in the SM8AINST.PDF file.
Slope stability analysis provided by ____

Measures will be taken to limit access to the top and bottom of hazardous slopes? ☐ yes ☒ no
Describe measures, or if no, explain: *THIS IS AN EXTREMELY ISOLATED LOCATION SURROUNDED BY COMMERCIAL TIMBER . THE NATURAL TOPOGRAPHY MAKES ACCESSIBILITY VERY DIFFICULT.*

Selective blasting will be used to remove benches and walls and to create chutes, buttresses, spurs, scree slopes, and rough cliff faces that appear natural? ☒ yes ☐ no
Describe procedures, or if no, explain: *RECLAMATION BLASTING WILL REDUCE THE HIGHWALLS. AFTER BLASTING IS COMPLETED THE SLOPE WILL BE SHAPED, AND STORED OVERBURDEN WILL*

CHECKLIST OF RECLAMATION STANDARDS

BE PUSHED ONTO THE BLASTED RUBBLE.

Reclamation blasting will be used to reduce the entire highwall to a scree or rubble slope less than 2 feet horizontal to 1 foot vertical? ☒ yes ☐ no
Blasting plan is attached? ☐ yes ☒ no
If no, explain: *WE INTEND ON USING RECLAMATION AND BLASTING TECHNIQUES AS PROPOSED IN BEST MANAGEMENT PRACTICES FOR RECLAMATION SURFACE MINES IN WASHINGTON. (SECTION 5.2) ONE HIGHWALL WILL REMAIN. THIS IS A RESULT OF PREVIOUS OWNERS MINING TECHNIQUES AND HAS BEEN ACCEPTED BY THE COUNTY ON THE ATTACHED SM-6.*

Access to benches will be maintained for reclamation blasting? ☒ yes ☐ no
If no, explain:

Small portions of benches will be left to provide habitat for raptors and other cliff-dwelling birds? ☒ yes ☐ no

25D. Backfilling

Slopes will require backfilling? ☐ yes ☒ no
Depth of backfilling is *N/A* feet.
Slope stability compaction analysis required? ☐ yes ☒ no
Compaction analysis provided by

Backfilling plan and (or) permits are attached? ☐ yes ☒ no
If no, explain: *NO BACKFILLING IS PLANNED AT THIS SITE.*

Backfilling will be done with overburden material after topsoil has been separated? ☐ yes ☒ no
If no, describe composition and source of backfill material: *NOT BACKFILLING – N/A*

Explain method of placement of fill: *N/A*

Locations of stockpiles are shown on maps and will be marked on the ground with permanent boundary markers? ☒ yes ☐ no

Will backfill be imported? ☐ yes ☒ no
If yes, give volumes needed to meet reclamation plan:

Areas to be backfilled are shown on maps? ☐ yes ☒ no
If no, explain: *NOT APPLICABLE*

All grading/backfilling will be done with clean, inert, non-organic solids? ☐ yes ☒ no
If yes, give details. If no, explain: *NOT APPLICABLE*

Backfilled slopes will be compacted? ☒ yes ☐ no
If yes, give details. If no, explain: *ALL SLOPE WORK WILL BE COMPACTED TO PREVENT EROSION AS NEEDED.*

Will you be backfilling into water? ☐ yes ☒ no
If yes, is slope stability analysis attached? ☐ yes ☐ no
If yes, describe method:

25E. Mine Floors

Flat areas will be formed into gently rolling mounds? ☐ yes ☒ no
If yes, give details. If no, Explain: *MINE FLOOR WILL BE SLOPED TO DIRECT ALL DRAINAGE TO RETENTION PONDS. (SEE DRAWING/MAP #4)*

Mine floor will be gently graded into sinuous drainage channels to preclude sheetwash erosion during intense precipitation? ☐ yes ☒ no
If yes, give details. If no, explain: *MINE FLOOR IS DESIGNED TO DIRECT STORM WATER TO RETENTION PONDS, AND WILL REMAIN THE SAME AT FINAL RECLAMATION.*

Mine floor and other compacted areas will be bulldozed, plowed, ripped, or blasted to foster revegetation? ☒ yes ☐ no
If yes, give details. If no, explain: *QUARRY FLOOR WILL BE BLASTED AND OR RIPPED AND*

OVERBURDEN WILL BE PLACED TO CREATE SEED BEDS FOR TREE PLANTING.

25F. Lakes, Ponds, and Wetlands

Is water currently present in the area or will the mining penetrate the water table? ☐ yes ☒ no
If no, go to Section 25G.

Reclaimed areas below the permanent low water table in soil, sand, gravel, and other unconsolidated material will have a slope no steeper than 1.5 feet horizontal to 1 foot vertical? ☐ yes ☐ no
If yes, give details. If no, explain:

If not already present, soils, silts, and clay-bearing material will be placed below water level to enhance revegetation? ☐ yes ☐ no
If yes, give details. If no, explain:

Some parts of pond and lake banks will be shaped so that a person can escape from the water? ☐ yes ☐ no
If yes, give details. If no, explain:

Armored spillways or other measures to prevent undesirable overflow or seepage will be provided to stabilize bodies of water and adjacent slopes? ☐ yes ☐ no
If yes, give details. If no, explain:

Wildlife habitat will be developed, incorporating such measures as:
- Sinuous and irregular shorelines? ☐ yes ☐ no
- Varied water depths? ☐ yes ☐ no
- Shallow areas less than 18 inches deep? ☐ yes ☐ no
- Islands and peninsulas? ☐ yes ☐ no

Give details:

Ponds or basins will:
- Be located in stable areas? ☐ yes ☐ no
- Have sufficient volume for expected runoff? ☐ yes ☐ no
- Have an emergency overflow spillway? ☐ yes ☐ no
- Spillways and outfalls will be protected (for example, rock armor) to prevent failure and erosion? ☐ yes ☐ no

If any answers are no, explain:

Proper measures will be taken to prevent seepage from water impoundments that could cause flooding outside the permitted area or adversely affect the stability of impoundment dams or adjacent slopes? ☐ yes ☐ no
If yes, give details. If no, explain:

Written approval from other agencies with jurisdiction to regulate impoundment of water is attached? ☐ yes ☐ no
If no, explain:

CHECKLIST OF RECLAMATION STANDARDS

25G. FINAL DRAINAGE CONFIGURATION

Drainage will be capable of carrying the peak flow of the 25-year, 24-hour precipitation event (*Data are available at DNR Region offices*) ☒ yes ☐ no
If yes, are calculations attached? ☐ yes ☒ no
If yes, give details. If no, explain: *NATURAL CONDITION OF DRAINAGE (WATER VELOCITY, VOLUME, TURBIDITY) WILL NOT CHANGE AND WILL REMAIN THAT WAY AT COMPLETION OF RECLAMATION.*

Drainages will be constructed on each reclaimed segment to control surface water, erosion, and siltation? ☒ yes ☐ no
Clean runoff is directed to a safe outlet? ☒ yes ☐ no
If either yes, give details. If no, explain: *FINAL RECLAMATION WILL HAVE DRAINAGE FLOWING THROUGH RETENTION PONDS, BEFORE DISCHARGING TO NEWSKAH CREEK. THESE PONDS WILL REMAIN ACTIVE AFTER FINAL RECLAMATION.*

Are these shown on maps? ☒ yes ☐ no

The grade of ditches and channels will be constructed to limit erosion and siltation? ☒ yes ☐ no
If yes, give details. If no, explain: *ALL DITCHES AND CHANNELS ARE BUILT WITH CHECK DAMS AND VEGETATION TO CONTROL EROSION.*

Natural-appearing drainage channels will be established upon reclamation? ☒ yes ☐ no
If yes, give details. If no, explain: *NATURAL VEGETATION WILL MAKE DITCHES AND CHANNELS APPEAR TO BE NATURAL.*

26. SITE CLEANUP AND PREPARATION FOR REVEGETATION

26A. Dealing with Hazardous Materials

Hazardous materials are present at the mine site? ☐ yes ☒ no

If no, go to Section 25B

The final ground surface drains away from any hazardous natural materials? ☐ yes ☐ no
If yes, give details. If no, explain:

Plan for handling hazardous mineral wastes indigenous to the site is attached? ☐ yes ☐ no

If no, written approval from all appropriate solid waste regulatory agencies attached? ☐ yes ☐ no

26B. Removal of Debris

All debris (garbage, 'bone piles', treated wood, old mining equipment, etc.) will be removed from the mine site? ☒ yes ☐ no
All sheds, scale houses, and other structures will be removed from the site? ☐ yes ☒ no
If either answer is yes, give details. If no, explain: *SHOP, OFFICE AND OTHER BUILDING WILL REMAIN AFTER FINAL RECLAMATION. WE ANTICIPATE THEIR USE AS A COMMERCIAL TRUCK SHOP.*

27. REVEGETATION

The mine site is in: ☐ eastern Washington ☒ western Washington

The mine site is: ☐ wet ☒ dry?

The average precipitation is *85 INCHES* per year.

Revegetation will start during the first proper growing season (fall for grasses and legumes, fall or late winter for trees and shrubs) following restoration of slopes? ☒ yes ☐ no
If yes, give details. If no, explain: *REVEGETATION WILL BEGIN AT THE EARLIEST TIME POSSIBLE. MOST AREAS WILL BE PLANTED IN DOUGLAS FIR IN ACCORDANCE WITH THE FOREST PRACTICES BMP'S.*

Test plots will be used to determine optimum vegetation plans? ☐ yes ☒ no

CHECKLIST OF RECLAMATION STANDARDS

The site will not be revegetated because:

☐ It is a rural area with a rainfall exceeding 30 inches annually and erosion will not be a problem (requires approval of DNR).

☐ Demonstration plots and areas will be used to show that active revegetation is not necessary.

☐ Revegetation is inappropriate for the approved subsequent use of this surface mine.

Explain:

Documentation is attached? ☐ yes ☒ no

27A. Recommended Pioneer Species

In the Sections below, check the species that will be planted at your mine site:
**** indicates nitrogen-fixing species***

Western Washington Dry Areas

☐ alfalfa*	☐ Lupine*	☐ clover*	☐ orchard grass
☐ cereal rye	☐ perennial rye	☐ colonial bent grass	☐ ponderosa pine
☐ creeping red fescue	☒ red alder*	☒ Douglas fir	☐ shore pine
☐ ground cover	☐ shrubs	☐ other	

Western Washington Wet Areas

☐ birdsfoot trefoil	☐ sedges	☐ cedar	☐ tubers
☐ cottonwood	☐ wetland grasses	☐ creeping red fescue	☐ willow
☐ red alder*	☐ other		

Eastern Washington Dry Areas

☐ alder*	☐ grasses	☐ alfalfa*	☐ juniper
☐ black locust	☐ lodgepole pine	☐ clover	☐ lupine*
☐ deciduous trees	☐ ponderosa pine	☐ shrubs	☐ deep-rooted ground cover
☐ diverse evergreens	☐ other		

Eastern Washington Wet Areas

☐ alder*	☐ cottonwood	☐ poplar	☐ sedges
☐ serviceberry	☐ tubers	☐ willow	
☐ other			

Give planting details (stems/acres of trees and shrubs, see Forest Practices manual; lbs/acre of grass, legume, or forb mixture):
THIS AREA IS IN A COMMERCIAL TREE GROWING ENVIRONMENT AND WILL BE USED AGAIN AS FORESTRY. ALL SEGMENTS WILL BE PLANTED WITH DOUGLAS FIR BARE ROOT SEEDLINGS USING THE PROCEDURE SET FORTH BY THE WASHINGTON FOREST PRACTICES MANUAL UNTIL IT IS EVIDENT THAT WE HAVE ACHIEVED AN ACCEPTABLE STOCKING. STOCKING LEVELS ARE ACCEPTABLE IF A MINIMUM OF 190 WELL-DISTRIBUTED, VIGOROUS, UNDAMAGED SEEDLINGS PER ACRE HAS SURVIVED ON THE SITE FOR AT LEAST ONE GROWING SEASON. GRASSES WILL BE USED TO CONTROL EROSION BECAUSE OF THEIR ABILITY TO PROVIDE COMPLETE GROUND COVER. THEY ALSO INCREASE WATER INFILTRATION, CONTRIBUTE ORGANIC MATERIAL TO SOIL. GRASSES WILL BE APPLIED AT 25-30 LBS PER ACRE. TREES WILL BE PLANTED AT 200 SEEDLINGS PER ACRE.

Describe weed control plan:
THIS PROPERTY IS SURROUNDED BY COMMERCIAL FORESTS. WE ANTICIPATE USING HIGH QUALITY NURSERY STOCK SEEDLINGS. THERE MAYBE SOME COMPETITION WITH OTHER NATURAL SPECIES BUT WILL NOT HARM THE SEEDLINGS.

27B. Planting Techniques

Revegetation at this site will require:

Ripping and tilling?	☒ yes	☐ no
Blasting to create permeability?	☐ yes	☒ no
Mulching?	☐ yes	☒ no
Irrigation?	☐ yes	☒ no

CHECKLIST OF RECLAMATION STANDARDS

Fertilization?	☒ yes ☐ no
Importation of clay- or humus-bearing soils?	☐ yes ☒ no
Other soil conditioners or amendments?	☐ yes ☒ no
Give details: *USE OF COMMERCIAL FERTILIZER MAY BE USED IN AREAS WHERE SOIL IS INCOMPLETE FOR THE PRODUCTION OF COMMERCIAL TIMBER.*	
Trees and shrubs will be planted in topsoil or in subsoil amended with generous amounts of organic matter? If yes, give details. If no, explain: *SUB SOILS AND OVERBURDEN ARE SUFFICIENT IN THE PRODUCTION OF CONIFERS. IF NEEDED A COMMERCIAL FERTILIZER MAY BE USED.*	☐ yes ☒ no
Mulch will be piled around the base of trees and shrubs?	☐ yes ☒ no
High quality stock will be used?	☒ yes ☐ no
Trees and shrubs will be planted while they are dormant?	☒ yes ☐ no
Stock will be properly handled, kept cool and moist, and planted as soon as possible?	☒ yes ☐ no
Seeds will be covered with topsoil or mulch no deeper than one-half inch?	☒ yes ☐ no
If any answers are no, explain: *WE DO NOT INTEND TO USE MULCH AS PRESENT SOILS SEEM ADEQUATE FOR THE CULTIVATION OF CONIFERS.*	

28. FINAL CHECKLIST

All required maps are attached (***See Instructions for detailed requirements***)?	☒ yes ☐ no
All required cross-sections are attached (***See Instructions for detailed requirements***)?	☒ yes ☐ no
Geologic map attached (if required)?	☐ yes ☒ no
All documents submitted have the date, the name and address of the permit holder, and the application number on every page of the material?	☒ yes ☐ no
The plan contains predominantly relevant information?	☒ yes ☐ no
Have you completed the SM-6 and has it been signed by the local jurisdiction?	☒ yes ☐ no
Have you provided the SEPA checklist?	☒ yes ☐ no
Have you provided a copy of the SEPA Determination (DNS, MDNS, or DS)?	☐ yes ☒ no
Have you attached photographs?	☐ yes ☒ no
Are additional supplemental studies included?	☐ yes ☒ no

If yes, check the appropriate box(es) below:

☐ Archeological ☐ Geohydrologic ☐ Backfill ☐ Slope stability
☐ Topsoil ☐ Flood plain ☐ Conservational ☐ Vegetation
☐ Other

Other permits required? ☒ yes ☐ no

If yes, check the appropriate box(es) below:

☐ Shoreline permit ☐ Water Discharge Permit ☐ Solid Waste Permit
☐ Air Quality Permit ☒ NPDS or General Discharge Permit ☐ Hydraulic Project Approval
☒ Special or Conditional Use Permit ☐ Other

CHECKLIST OF RECLAMATION STANDARDS

When signed by the applicant and approved by the Department of Natural Resources, this document and the associated maps, cross sections, reclamation narrative, and other attachments will be the approved reclamation plan for this permit that the permit holder must follow. Significant variations from the approved reclamation plan may require that a new plan be submitted to the Department for approval.

The applicant shall be considered as the permit holder for this surface mine and shall be responsible for compliance with Chapter 78.44 RCW, Chapter 332-18 WAC, the approved reclamation plan and attachments, and the conditions of the permit if issued by the Department of Natural Resources.

I hereby agree to comply with this plan. *Signature of applicant or company representative*	Name and Title of Company Representative (*Please print*) Joseph P. Stipich President	Date signed 1/13/04

SURFACE OWNERSHIP (~~For New Permits Only~~)
Give names, addresses, and signatures of all individuals with possessory interest in land.
(attach signed copies of this page if more than one)
I verify that the applicant has my permission to mine from my land.
Signature of landowner(s) *Date Signed*

Northwest Rock, Inc President 3/25/04

I hereby verify that I have seen and approved this plan.
Signature of landowner(s) *Date Signed*

OWERSHIP OF RIGHTS TO REMOVE MINERALS BY SURFACE MINING (~~For New Permits Only~~)
Give names, addresses, and signatures of all individuals with rights.
(attach signed copies of this page if more than one)
I verify that the applicant has my permission to mine this land.
Signature of rights owner(s) *Date Signed*

Northwest Rock, Inc President 3/25/04

I hereby verify that I have seen and approved this plan.
Signature of rights owner(s) *Date Signed*

FOR DEPARTMENTAL USE ONLY

Date accepted	Accepted by:	Title:	Reclamation Permit No.

Comments by Department:

Plan Narrative for the Newskah Quarry

Permit area

The proposed permit area is 135.27 acres. The actual quarrying is taking place on about 62 acres, including the area yet to mine. There are about 24 acres left to strip and mine. Permanent survey markers mark all property corners.

Subsequent Use

Planned subsequent use of the site will be forestry. The final reclamation slopes will blend well with the surrounding terrain, and Rayonier and Weyerhaeuser timberland surround the actual quarry area on three sides.

Ground water

The site is bedrock on the side of a mountain, with good drainage. Although ground water is encountered because of the porous nature of the diced basalt bedrock, there is no standing ground water level. All water drains from the rock faces to the quarry floor, then to the storm water treatment ponds, before draining to Newskah Creek.

Soil Budget

In the area of the quarry left to be stripped and mined, about 24 acres, the organic rich topsoil is less than one foot in depth, and the subsoil averages 36 feet deep, as determined by test drilling. This gives a volume of 1,375,000 CY total to strip. The overburden averages 69 feet deep on the top of the area, and tapers to exposed bedrock on the lower side of phase 2, and the bed of Falls Creek. The top of phase 3 is a relatively flat area of about 7 acres, or roughly 230' average width by 1300' long. The soil depth on the steeper slopes, which make up phases 1 and 2, is not as deep as the top of phase 3 and averages 25 feet deep. This gives a total volume for phase 1 and 2 stripping of 480,000 CY. The storage area on top of phase 3 will hold about 460,000 CY to a depth of 60', with slopes. Even if all the soil will not fit, before phase 2 is mined out progressive reclamation could begin in the mined out areas of the east side of the quarry. As phase 3 is stripped, the overburden will be carried down to reclaim the mined out areas. There is enough soil to easily cover the entire mine area to a depth of over 10' at final reclamation.

Soils Available	**Soils Needed for replacing@**
Soils in Bank=1,375,000CY	62 acres by 14'deep=1,375,000CY

Reclamation Setback and Reclamation Sloping

The maximum depth of the mine will be 350 feet, and the reclamation setback will reflect a 2H: 1V final slope, which will vary with the height of the quarry wall. Blasting the front edges of the final benches to create a rubble slope, which will then be covered by overburden, will form the reclamation slopes. Falls Creek, in the southwest corner of the quarry, will be treated as a class 3 creek, and a minimum permanent setback of 50 feet will be maintained along the north bank of the creek. No mining activity will occur to the south of the Falls Creek setback.

Mine Phasing and Reclamation Sequencing

Mining will continue on the east face of Phase 1, with the bench width increased to reflect the 2H:1V final slope. The stripped overburden will be transported to the top of Phase 3 for storage. There the soil will be dozer placed, compacted, and sloped at 2:1 and seeded for stability and erosion control. Ditches will be constructed to protect Falls Creek from runoff storm water. Within the next few years, Phase 2 will be started, with much of the overburden either permanently fit into the downhill slope, or stockpiled in the back of phase 2 until the benches are connected around the phase 1 face. This will allow much shorter overburden transport to the storage area. Once the benches are fully connected from phase 1 into phase 2, the benches in the eastern mined out area will no longer be needed for access, and reclamation could begin there any time after that. The eastern end of the quarry has been mined out over the last 30 years, and averages 1½H:1V through the benches. At reclamation, when access is acquired on the west side, these benches will be rubbleized, and covered with overburden, but will probably remain steeper than 2H:1V. This should be acceptable as the adjacent natural terrain contains many slopes this steep and even steeper. As phase 2 is completed, that will open up another area for reclamation, requiring leaving only enough bench area for access to phase 3. The overburden from phase 3 will be distributed on the mined out eastern end, and phase 2, and finally, sequentially on phase 3 itself as mining progresses toward the end of the quarry's life.

The southwest corner of the area yet to mine contains a permanent creek, Falls Creek, which will be treated as a class 3 creek. Falls Creek crosses the quarry in an east to west direction in a steep ravine completely separate from any other drainage in the mine. A minimum 50-foot permanent setback will be maintained from the north bank, and the area south of the setback will remain undisturbed. No mining activity will interfere with the drainage at any time. Final reclamation will include sloping to protect the drainage.

Existing concrete and asphalt will be properly disposed of, and all roadways, rock pads, and stockpile areas will be ripped to a depth of 2 to 3 feet to expose the underlying soil, and sloped no steeper than 2H:1V.

Final Drainage

As no existing drainages will be disturbed, final drainage will follow the same path that it presently does. The quarry floor will slope toward the present drainage both during mining and after reclamation. Permanent detention ponds have been added to the drainage below the quarry to catch silt from quarry activities and storm water runoff, and will be left in place after reclamation to slow storm water, and to create a wetlands habitat of about 5 acres.

Revegetation

Revegetation will occur in two phases. As the slopes are completed, they will be seeded and fertilized with a county approved grass seed, and the following winter/spring will be planted with native trees, including Douglas fir at a rate of 300 stems per acre for a survival rate of 190 stems per acre in accordance with the forest practice standards.

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